

Maine Department of Marine Resources

Rockweed Fisheries Management Plan Development Team

Meeting Minutes

*November 7, 2013
(PDT Approved December 5, 2013)*

The following meeting minutes and flip chart notes were provided by Maine Sea Grant to facilitate the development of a Department of Marine Resources (DMR) Rockweed Fishery Management Plan (FMP). They are intended to give highlights of the Plan Development Team (PDT) discussion, and should not be considered an all-encompassing or official record of the meeting. Maine DMR and the PDT are grateful for Maine Sea Grant's contributions to this process.

Attending:

Jane Arbuckle (Maine Coast Heritage Trust), Chris Bartlett (ME Sea Grant), Brian Beal (UMaine Machias), Susan Brawley (UMaine), Susan Domizi (Source Maine), Linda Mercer (DMR), Dave Preston (North American Kelp), Sarah Redmond (ME Sea Grant), Nancy Sferra (Nature Conservancy), Pete Thayer (DMR), Raul Ugarte (Acadian Sea Plants), and Chris Vonderweidt (DMR)

Public attending

Tom Abello (The Nature Conservancy), Shep Erhart (Maine Coast Sea Vegetables), Judy Camoso (Maine Fish and Wildlife), Jeff Romano (Maine Coast Heritage Trust), Robin H. Seeley (Cornell), and Susan Shetterley (Writer)

Welcome/Intros

Review of Agenda

Review Meeting Minutes from September 12, 2013 PDT meeting:

- Amend Sept and Oct minutes to include Robin H. Seeley on attendance list
- Pg. 3, first bullet under "Review of Sector Management for Rockweed Harvesting Whitepaper" Add "and other conserved lands" to the sentence: "Conservation easements are no different than any other land owner rights....."

Minutes approved with revisions.

Review of Ground Rules

- Request that public comments are limited to breaks, except for very focused comments or input at chair's or PDT's discretion

Cutting Height and Sector Management Recommendations

Review of management recommendations by DMR

Cutting Height:

- Maintain at 16” cutting height and requirement to cut above the first lateral branches
 - Based on numbers given in background, it would seem that a 16” would require many years for regrowth
 - Cutting is not uniform, Cutting can stimulate growth, and new growth can be more rapid, Highly variable regrowth rates
 - In general, a 16” cutting height allows for fast growth of new shoots
 - Should a lower cutting height also include a reduced biomass harvest?
 - Considering natural loss, current harvest effort is minimal, the plan should include protections against an increase in possible future effort
 - Can preservation of canopy cover through non-uniform harvesting be included in the goals or training?
 - Does mechanical harvesting leave the same type of patchiness that hand harvesting does? It was difficult to observe on field trip – Will this randomness in harvest be preserved?
 - Mechanical harvesting does leave patchiness, since it is a rocky, variable coast, and harvesters are drifting with tides, moving in and out of areas, and you can only operate at high tide – very difficult to plan randomness in a harvest, since the harvester operates with the existing conditions
 - The nature of current harvest methods does impart patchiness, with drifting, tides, weather, etc., but this should be built in as a requirement for unforeseen harvesting techniques
 - Should the 17% biomass be harvested in one area, or spread out over a larger area? If you spread it out along the whole sector, there are lower impacts per area, but if you harvest in just one area, you could leave certain areas uncut
 - Distribution of heights in a bed – very difficult to enforce – the 17% removal rate allows for some of the plants to be uncut
 - Regulations have to be enforceable
 - Ascophyllum and ecosystem function: Ascophyllum will recover when cut at 16” in 3-10 years, usually within 3-5 years, but if you cut heavily in one area, the ecosystem function could be affected
 - Could build in a requirement about new types of harvesting, so that DMR has to review the impacts before it is approved
 - Percentage removal rate protects from clear cutting
 - What kind of language can be included? -Specify that the harvester should harvest to maintain a canopy that has overall normal structure, to avoid cutting areas to 16” in its entirety within a certain defined patch (based on natural impacts of ice scour)
 - Great variability and non-uniformity of annual growth rate within the same area – large range of growth rates
 - Add additional language about preserving patchiness; though think about enforceability and definitions, a boundary size or area, maybe 50 square meters? Will there be more direction for marine patrol to enforce the 16”? Perhaps DMR

should work with Marine patrol to understand the intent, with plans to address potential problems

- Maintaining habitat structure is built into the FMP as part of the goals
- Motion to adopt 16" minimum cutting height: This will depend on harvest percentages, tabled for later discussion
- Should we define first lateral branches more clearly, since it can be variable and difficult to enforce? In general, the 16" will ensure lateral branching – if its not enforceable or meaningful, perhaps it should be removed – *recommendation to remove from language*
- Cutting height: as long as the structure is preserved, cutting height doesn't matter that much – Harvest efficiency, impact will vary over different harvest areas, depending on height of plants – impact of harvest on an area matters more
- Enforcement of 16": is there a way to develop guidelines for marine patrol to allow for reasonable enforcement of the cutting height? Usually marine patrol has a system for reasonable enforcement

Coastwide Sectors General:

- Implement coastwide sector management, with 2 options for sector development:
Option 1: Allocate and establish sectors upon request/allocation,
Option 2: Pre determined sectors based on existing maps or boundaries with subsectors
 - Harvesters need guidance for Sector characterization/development
 - If option 1, the sectors developed should be established long term, especially for tracking landings
 - Could require a sector management plan within the area allocated, through this process sectors would be developed over time within areas that are being harvested
 - Modify option 1: as sectors are established, they become permanent, and DMR should provide guidance on how sectors should be established
 - How will small sectors/harvesters fit in? Build in flexibility for DMR to decide: develop a minimum size, that can be developed as subsectors within a larger area
 - *Public comments on cutting height:*
 - How does the 16" and 17% harvest get back to an original cutting height? – at 17% removal, it stays uncut and recovers in 3-5 years – in 5.88 years, the 16" cut plants never get back to original canopy height, according to calculations
 - Need to add in increase in rate of growth after harvest – Irregular growth rates inside a canopy, increased light and nutrients within a stand with some removal – range of growth rates is great, much of this is covered in literature in document – cutting height should be coupled with percentage removal – 32" has been suggested and should be considered – a 32" creates a different recovery strategy - attempting to maintain a non uniform harvest: perhaps within training, the intention and reasons can be translated to the harvesters – allow innovation, but give DMR power to overview –

- **Developing Sector Areas:** should there be a defined size range? Maybe harvesters can break up in a way that makes sense for area into subsectors and include in harvest plan
- Harvesters submit a plan based on area of traditional harvest or desired harvest: Within harvest plan, submit biomass estimates within the actual harvested area (subsectors), would allow for flexibility for a variable coastline
- How will companies develop sector sizes differently? There should be some guidance on how sectors/areas are allocated, especially for collecting data, a maximum or minimum size
- How will closed areas and research areas be included or excluded?
- Point to point = Area of harvest, within area, define sectors, Sectors/Subsectors
- **Granted to one entity only:** Should this be specific to harvester, buyer, license holder? Should have a reasonable plan, regardless of the entity – Sector holder is responsible for the sector
- Currently, harvesters work in their own areas, there is some competition, but not much – competition over desirable sectors
- 17% per year vs. every 3-5 years rotation – could affect how much area will be required per harvester
- many factors to consider in a sector: Harvestable areas, biomass, accessibility, proximity to landing area,
- **Three year allocation:** Based on the idea of the 3 year rotation, avoids problems with indefinite continuation – develop language that ensures confidence for companies – Current sectors in Cobscook are allocated annually – *suggestion to increase to 5-6 years* – a “rolling” allocation could be considered as indefinite – Intent is that commissioner will renew without any issues – Should consider biomass assessment (every 6 years) and exploitation rate
- Aquaculture leasing vs. sector allocation: differences in use of public resource
- Commissioner shall renew unless: significant non-compliance, or no significant harvest in a year, unless part of initial plan, *-should add something that allows for unforeseen circumstances (natural loss, equipment or personnel issues, etc)*
- Harvest plans are submitted in terms of a person for Cobscook currently: should the companies be included in plan for accountability, or should a single person be accountable, or the company? Currently, there are individuals that harvest within a company – held sector
- **Subletting :** Should it be prohibited? – Will this limit a company? If the company or person allotted the sector is responsible, should they be allowed to sublet some of their sector out to others if they see fit? If companies can secure sectors, then they have access to the resource – what is considered subletting? Accountability of sector is currently on the company holding the sector, not the individual harvester hired by the company
- **Non-Transferrable:** Should sectors be transferrable? What if the company is sold to new owners? Other fishing licenses are non transferrable – company will need to reapply every so many years with harvest plans, etc. If sectors can be sold, could create an unintended “market” for sectors – Will there be a fee to hold a sector? There could be a review process for the sale of a company, with

accompanying sectors – What about new entrants? Anyone is eligible to apply for a sector – how to incorporate fairness

Required Sector Request Information

- Contact info, Boundaries of requested area, Harvesting method, Preliminary biomass removal amount, description of harvester training, preliminary list of harvesters, previous rockweed harvesting experience including experience within sector area
 - Should processing location be included? Is this information appropriate for the harvest plan, or should it be given after the sector has been allocated? Some harvesters might move around often within different locations – DMR Follow up letter currently asks harvesters to notify marine patrol where and when harvest is going to take place – What is the purpose of notifying marine patrol, when its not required for other fisheries? Marine patrol should have information about sector holders and harvesters anyway –
 - PDT agrees that processing location should be required.
 - Should the harvest license indicate which sector the harvester is allowed to harvest in? Harvesters are not usually restricted to one sector, and a list of harvesters are supplied with harvest plan
 - How does marine patrol assess the 17% removal rate? -Through landings program, which is currently reported by port landed, not by sector, will need a rule change

Sector Allocation

- Commissioner may assign non-competing (only one applicant) sector area
- Commissioner shall consider for competing applications: (no hierarchy of priority): Including: History of harvest in an area (individual and company), Distance to residence and processing location, Experience harvesting rockweed, Past compliance, Training program, Overall benefit to state
 - Should landing location and processing location be included?
 - Difficult to assign a sector to competing applicants – DMR would prefer that companies or individuals work it out amongst themselves, but need a system to decide allocation
 - It will be helpful to get feedback from the companies and harvesters about their ideas about allocation, maybe a topic to cover at ME Seaweed council meeting

Biomass estimate

- Must be reviewed and approved by DMR, Valid for 3 years, Allowed to remove % biomass, DMR may allocate less to preserve sustainability and ecological function
 - Should require a biomass estimate for a certain amount harvested, maybe less than 50 tons? What scale would that be on?
 - Would small-scale harvesters need to acquire a sector?
 - No way to collect information about cumulative impact of small amounts of harvest
 - Unresolved: % Harvest allowance, harvestable or total biomass

- Initial survey of a sector, monitor a percentage of sector every year,
- Company should pay for biomass assessment, but DMR should be doing some kind of biomass survey for verification to check company numbers – need a standard system for biomass estimates –
- Aerial surveys and ground truthing ... are there other methods available? What if new methods are developed? Need flexibility in methods, but need a way to check numbers to validate estimates – currently DMR reviews calculations to check estimates
- Is there a way for DMR or a third party to do the biomass estimates? Companies can come up with very different numbers – would help with credibility of numbers
- Maybe company money could pay for an independent third party to do biomass, or an increased charge on landings, etc.
- Total vs harvestable biomass: Accessible biomass is considered harvestable biomass –
- Cobscook bay: “Harvestable” means all areas not closed to harvest – Total biomass removed must not exceed 17% of the harvestable biomass -
- Need to clearly identify which portion of the biomass is “harvestable”, considering closed areas, accessible areas, and biomass below 16”
- A third party could only estimate total biomass, only the harvesters can identify “harvestable” biomass
- Could DMR take on some of the work with an increase in fees?
- Could have a third party audit the biomass numbers, a third party observer while company is conducting biomass surveys and estimates
- Unknown what cost of assessment would be – estimated to cost about \$30,000 for aerial surveys and groundtruthing for 12 areas in Jonesport -
- Current landing fee language needs to be rewritten to include a few companies that are currently not paying
- Allocated areas could be addressed first, with unallocated areas to follow
- Maybe the idea of third party verification should be considered by DMR and ME Seaweed Council, to revisit next meeting
- Maybe DMR could contract with one company to go out and assess sectors, to check on a sample of the sectors to check with company numbers
- Need one standard for assessment and sufficient training – difficult to increase fees to raise more money
- Need to consider how to support research as well
- Harvest vs. Total Biomass: is 17% removal harvestable or total??
- 17% was a conservative number chosen in Canada to be safe – Requires a larger area to harvest in – 25% is considered a safe number too
- Annual internodal growth in rockweed shoots gives a history of growth on a plant – Raul has been following tagged plants for several years, taller plants are more dynamic, losing and gaining weight, with faster growth rates, while under canopy shoots are suppressed and show very little growth or change over time – After harvesting at 25%, found that harvesting mimics effects of exposed areas – accelerating growth process – Harvest studies show the same or increased heights over time

- At what level is ecosystem function affected? Keep natural loss percentages in mind for perspective
- Rotating harvest : 23-30% harvest in an area with a fallow period for 3 years, vs. 17% annual take every year
- Is 17% take spread over an area or from one area? Do many closed areas contribute to concentrated areas of take?
- Difficult to envision without knowing the amount or extent of closed areas
- There are maps of conservations areas
- Conservation concerns, IF&W, should also consider other fisheries and disturbances as they are bringing up rockweed harvesting concerns
- Need to come up with some criteria for selecting closed areas
- 17% of total biomass? More consistent to talk about total biomass –

Three-year rotational harvest plan: An alternative option to biomass estimate?

- Must specify where harvest will occur in each year, cannot deviate from this plan – Gives option for company that lacks expertise, cannot afford, or do not want to do a biomass assessment – Downside is reduced flexibility
 - Is there a threshold sector size that would be sufficiently small to not require a biomass estimate or 3 year rotational plan?
 - Difficult to know how percentage of take is without biomass estimate
 - Is there a need for recreational licenses? Recreational taking is usually only for seafood bakes or gardens / Cabbage Island Clambakes
 - What is the minimum harvesting area or harvest amount required to be reported, and how to track that harvest? GPS? Sectors? Arrangement with sector holders?
 - Maybe harvesters taking under a certain amount of rockweed wouldn't need a biomass assessment, maybe under 10 tons, without getting a sector? Open sections/identified areas?
 - Small sector: without a biomass assessment
 - Regular sector requiring biomass assessment

Submit final list of harvesters:

- Required to notify DMR of new harvesters 48 hrs before harvesting
- Annual harvest reports required for each sector. Must include: Amount removed the previous year (in addition to required landings), Noteworthy information relevant to stature, long-term sustainability, and ecosystem function of rockweed stands in sector (ex. Ice scour or die-offs)

Adjourn at 3:56pm

Rockweed Fisheries Management Plan Development Team
Flip Chart Notes

November 7, 2013

Management Measures

Cutting Height

- 16 inch minimum cutting height
- Remove requirement to cut above first lateral branch
- How do we assure randomness; non-uniform cut?
 - Require that harvesting results in a non-uniform canopy?
- How big of an area would be used to assess a non-uniform cut?
 - Consult Marine Patrol

Sectors (Part I)

- Option 1 revised: sectors are not predetermined, *but once established are maintained over time*
- Require sector management plan within harvest plan
- Sector is assigned to one entity
- Suggest 6-year assignment coupled with biomass assessments
- Revise: DMR may revoke sector for no significant harvest *without justifiable explanation*
- Commissioner shall review transfers

Allocation (Part III)

- Include landing location and processing location in criteria
- Allocation criteria tabled for further discussion

Requirement Prior to Harvesting (Part IV)

- Consider requirement for third-party biomass assessments
- DMR may allocate a maximum of 17% total biomass annually
- Small commercial landings ≤ 10 tons would not require biomass assessments
 - Would require landings; harvest plan

Parking Lot (for further discussion)

- Allocation criteria for sectors